

26. (new) The system of claim 24, wherein said means for processing said NICAM audio signal comprise:

means for mixing said NICAM audio signal with an oscillating signal; and

means for low-pass filtering said NICAM audio signal.

REMARKS

This is a full and timely response to the non-final Official Action mailed August 28, 2002 (Paper No. 4). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

By the forgoing amendment, claim 8 has been amended. Claim 16 and 17 have been cancelled, and new claims 18-26 have been added. Thus, claims 1-15 and 18-26 are currently pending for the Examiner's consideration.

In the outstanding Office Action, the Examiner indicated allowable subject matter in claims 8 and 9. Applicant wishes to thank the Examiner for this identification of patentable subject matter. Accordingly, Applicant has amended claim 8 to include all the recitations of claim 1. Consequently, claim 8 is now an independent claim, and claims 8 and 8 should be in condition for immediate allowance based on the Examiner's identification of allowable subject matter. Notice to this effect is respectfully requested.

With regard to the prior art, the Examiner rejected claims 1-6 and 16-17 as anticipated under 35 U.S.C. § 102(b) by U.S. Pat. No. 5,220,602 to Robbins et al. ("Robbins") and claims 7

and 10-15 as unpatentable under 35 U.S.C. § 103(a) over Robbins. For at least the following reasons, these rejections are respectfully traversed.

Claim 1 recites:

For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:

a first signal path, arranged to receive the tuned signal from the tuner and to provide a NICAM signal component of the tuned signal to the radio frequency modulator; and

a second signal path, arranged to receive the tuned signal from the tuner and to provide at least one other signal component of the tuned signal to the radio frequency modulator.

In contrast, Robbins fails to teach or suggest “a first signal path, arranged to receive the tuned signal from the tuner and *to provide a NICAM signal component of the tuned signal to the radio frequency modulator.*” (emphasis added). Robbins teaches a signal path for a NICAM signal including the output of mixer (40) and NICAM filter (48). However, this signal path does not “provide a NICAM signal component of the tuned signal to the radio frequency modulator” as claimed. The modulator (58) taught by Robbins receives only the monaural, non-NICAM audio signal through filter (42). (*See Fig. and Robbins, col. 4, lines 19-23*). Consequently, Robbins fails to teach or suggest a signal path for providing a NICAM signal to a radio frequency modulator.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). *See M.P.E.P. § 2131*. Consequently, for at least this reason, the rejection based on Robbins of claim 1, and all claims that depend from claim 1, is deficient and should be reconsidered and withdrawn.

Claim 11 recites:

For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:

a NICAM surface acoustic wave filter, coupled to receive the tuned signal from the tuner and configured and arranged to pass a NICAM signal component of the tuned signal and to substantially reject non-NICAM signal components of the tuned signal;

a mixer, coupled to receive the NICAM signal component passed by the NICAM surface acoustic wave filter, and configured to downconvert the NICAM signal component to a baseband NICAM IF frequency; and

a low pass filter, coupled to receive the downconverted NICAM signal component from the mixer and configured and arranged to attenuate mixer harmonics from the downconverted NICAM signal and to provide a NICAM output signal to the radio frequency modulator.

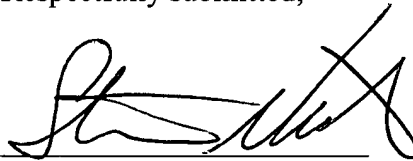
In contrast, Robbins fails to teach or suggest "a NICAM surface acoustic wave filter, coupled to receive the tuned signal from the tuner and configured and arranged to pass a NICAM signal component of the tuned signal and to substantially reject non-NICAM signal components of the tuned signal." The filter (48) taught by Robbins for passing a NICAM signal is *not* a surface acoustic wave (SAW) filter as claimed. Robbins does teach a SAW filter (26). However, that filter does not, as claimed, pass only a NICAM signal. Thus, Robbins fails to teach or suggest the claimed "NICAM surface acoustic wave filter."

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection based on Robbins of claim 11, and all claims that depend from claim 11, is deficient and should be reconsidered and withdrawn.

The newly added claims, claims 18-26 are thought to be patentable over the applied prior art for at least the same reasons given above with regard to claim 11. Therefore, Applicant respectfully requested the examination and allowance of claims 18-26.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper which have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,



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Claims Appendix

For the convenience of the Examiner, and in accordance with 37 CFR 1.121(c)(1)(ii), all pending claims are presented below in their current form. Amendments made by the present paper are indicated with added material being underlined and deleted material being bracketed.

1. For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:

a first signal path, arranged to receive the tuned signal from the tuner and to provide a NICAM signal component of the tuned signal to the radio frequency modulator; and

a second signal path, arranged to receive the tuned signal from the tuner and to provide at least one other signal component of the tuned signal to the radio frequency modulator.

2. A passthrough circuit, as claimed in claim 1, wherein the first signal path comprises a NICAM surface acoustic wave filter, coupled to receive the tuned signal from the tuner and configured and arranged to pass a NICAM signal component of the tuned signal and to substantially reject non-NICAM signal components of the tuned signal.

3. A passthrough circuit, as claimed in claim 2, wherein the NICAM surface acoustic wave filter outputs a signal to a mixer which is set at a selected frequency using a crystal oscillator.

4. A passthrough circuit, as claimed in claim 1, wherein said first signal path comprises an alignment-free filter coupled to receive the tuned signal from the tuner and configured and arranged to pass a NICAM signal component of the tuned signal and to substantially reject non-NICAM signal components of the tuned signal.

5. A passthrough circuit, as claimed in claim 2, wherein the first signal path further comprises a mixer, coupled to receive the NICAM signal component passed by the NICAM surface acoustic wave filter, and configured to downconvert the NICAM signal component to a baseband NICAM IF frequency.
6. A passthrough circuit as claimed in claim 5, wherein the NICAM IF frequency is one of 6.552 MHz and 5.85 MHz.
7. A passthrough circuit as claimed in claim 5, wherein the first signal path further comprises a low pass filter, coupled to receive the downconverted NICAM signal component from the mixer and configured and arranged to attenuate mixer harmonics from the downconverted NICAM signal and to provide a NICAM output signal to the radio frequency modulator.
8. (once amended) For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:
 a first signal path, arranged to receive the tuned signal from the tuner and to provide a NICAM signal component of the tuned signal to the radio frequency modulator; and
 a second signal path, arranged to receive the tuned signal from the tuner and to provide at least one other signal component of the tuned signal to the radio frequency modulator;
 [A passthrough circuit as claimed in claim 1,] wherein the second signal path comprises:
 a channel surface acoustic wave filter, arranged to receive the tuned signal from the tuner and to filter the tuned signal to generate a filtered signal;
 an intermediate frequency strip, configured and arranged to amplify the filtered signal;
 a dual surface acoustic wave filter, configured and arranged to separate the amplified filtered signal into audio and video signal components;

an audio and video amplifier, operatively coupled to the dual surface acoustic wave filter and configured and arranged to amplify the audio and video signal components; and

an audio/video demodulator, configured and arranged to downconvert the amplified audio and video signal components to their respective baseband frequencies and to provide the downconverted audio and video signal components to the radio frequency modulator.

9. A passthrough circuit as claimed in claim 8, wherein the second signal path further comprises an operational amplifier arrangement, coupled between the dual surface acoustic wave filter and the audio and video amplifier, configured and arranged to further amplify the amplified filtered signal.

10. A passthrough circuit as claimed in claim 1, wherein the first signal path is constructed as a unitary circuit module.

11. For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:

a NICAM surface acoustic wave filter, coupled to receive the tuned signal from the tuner and configured and arranged to pass a NICAM signal component of the tuned signal and to substantially reject non-NICAM signal components of the tuned signal;

a mixer, coupled to receive the NICAM signal component passed by the NICAM surface acoustic wave filter, and configured to downconvert the NICAM signal component to a baseband NICAM IF frequency; and

a low pass filter, coupled to receive the downconverted NICAM signal component from the mixer and configured and arranged to attenuate mixer harmonics from the downconverted NICAM signal and to provide a NICAM output signal to the radio frequency modulator.

12. A passthrough circuit as claimed in claim 11, wherein the mixer is set at a selected frequency using a crystal oscillator.
13. A passthrough circuit as claimed in claim 12, wherein the selected frequency is one of 45.75 MHz and 38.9 MHz.
14. A passthrough circuit as claimed in claim 11, wherein the baseband NICAM IF frequency is one of 6.552 MHz and 5.85 MHz.
15. A passthrough circuit as claimed in claim 11, wherein the NICAM surface acoustic wave filter, mixer, and low pass filter are constructed as a unitary circuit module.
16. (cancelled) A signal processing circuit in which a first component of a signal is separately processed, the processing circuit comprising:
 - a first signal path connected between an input terminal and an output terminal, said first signal path including a first processing circuit for processing said signal and providing a first processed signal to said output terminal; and
 - a second signal path connected between said input and output terminals, said second signal path comprising a alignment-free filter for passing substantially only said first component of said signal and a second processing circuit for processing said first component of said signal and providing a second processed signal to said output terminal.
17. (cancelled) A circuit, as claimed in claim 16, wherein said signal is an audiovisual signal and said first component is a NICAM digital audio signal.

18. (new) A method of processing a television signal comprising filtering an output of a tuner with a surface acoustic wave filter to separate a NICAM audio signal from said output of said tuner.
19. (new) The method of claim 18, further comprising:
processing said NICAM audio signal; and
inputting said NICAM audio signal to a modulator.
20. (new) The method of claim 19, further comprising modulating said NICAM audio signal and a video signal of said television signal to produce a radio frequency signal.
21. (new) The method of claim 20, further comprising outputting said radio frequency signal to a television set.
22. (new) The method of claim 19, wherein processing said NICAM audio signal comprises:
mixing said NICAM audio signal with an oscillating signal; and
filtering said NICAM audio signal.
23. (new) A system for processing a television signal comprising:
means for tuning a selected channel signal from an incoming television signal; and
means for filtering said channel signal with a surface acoustic wave filter to separate a NICAM audio signal from said channel signal.
24. (new) The system of claim 23, further comprising:
means for processing said NICAM audio signal; and
means for modulating said NICAM audio signal with a video signal of said channel signal to produce a radio frequency signal.

25. (new) The system of claim 24, further comprising means for outputting said radio frequency signal to a television set.
26. (new) The system of claim 24, wherein said means for processing said NICAM audio signal comprise:
- means for mixing said NICAM audio signal with an oscillating signal; and
 - means for low-pass filtering said NICAM audio signal.